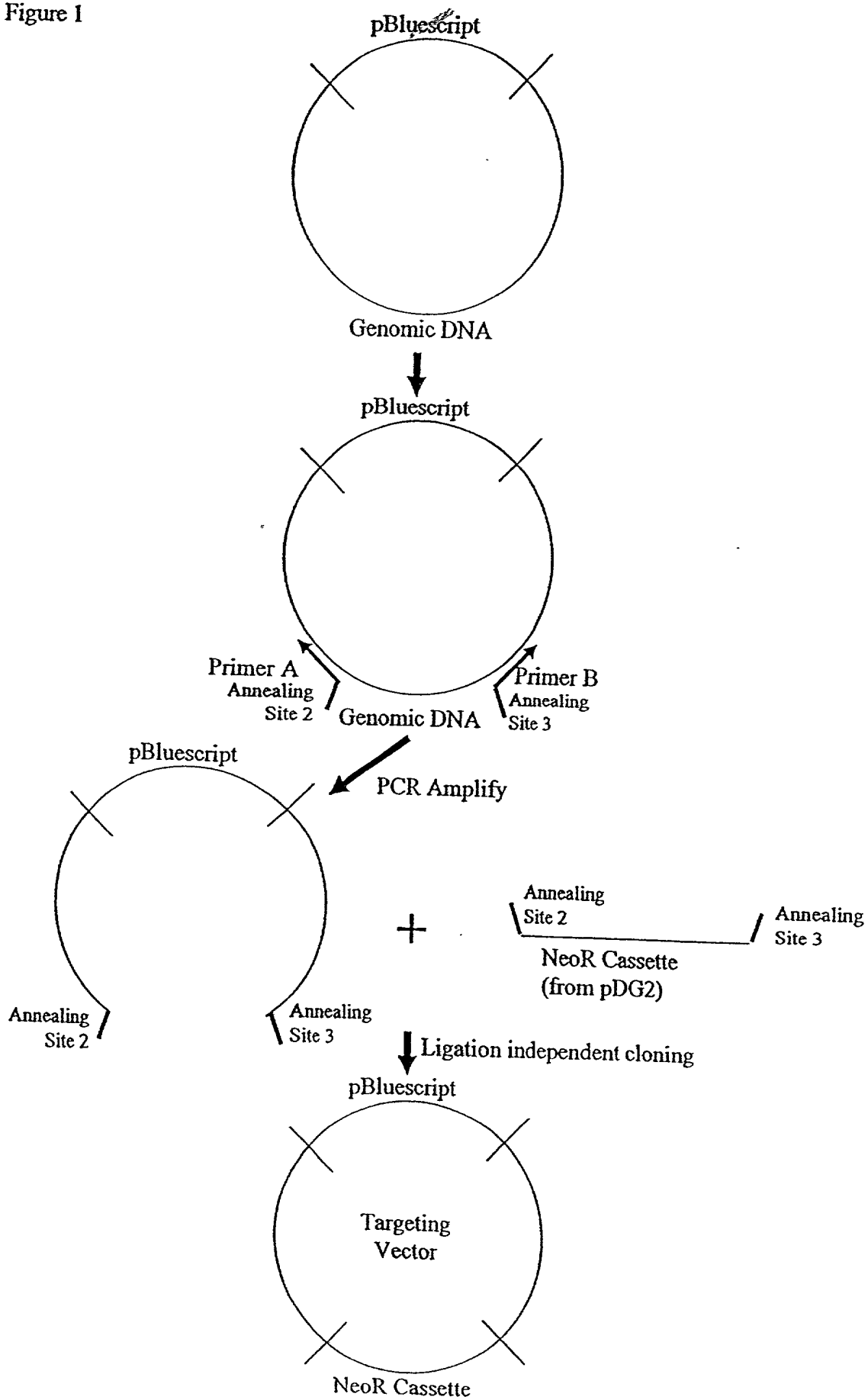


Figure 1



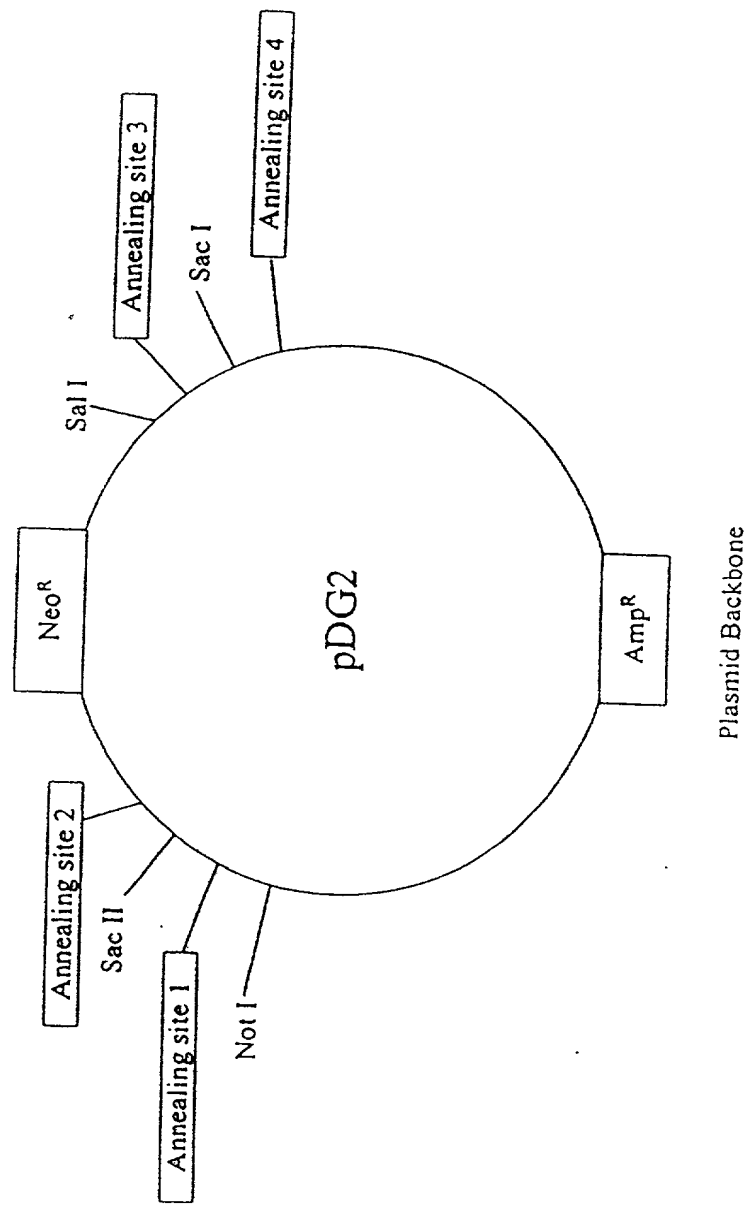


FIGURE 2A

FIGURE 2B

pDG2:

GTAACTACGTCAGGTGGCACTTTTCGGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTCTAAATACATTCAAATA
TGTATCCGCTCATGAGACAATAACCCGTATAAATGCTTCAATAATATTGAAAAAGGAAGAGTATGAGTATTCAACATTTTC
CGTGTGCGCCCTTATTCCTTTTTCGGGCAATTTGCCTTCTGTTTTCGCTCACCAGAAACCGTGGTGAAGTAAAGAA
TGCTGAAGATCAGTTGGGTGCAGAGTGGGTACATCGAACTGGATCTCAACAGCGGTAAAGATCCTTGAGAGTTTTCGCC
CCGAAGAACGTTCTCCATGATGAGCACTTTTAAAGTTCTGCTATGTGGCGCGGTATTATCCCGTGTGACGCCGGGCAA
GAGCAACTCGGTGCGGCATACACTATTCTCAGAATGACTTGGTTGAGTACTCACCAGTACAGAAAAGCATCTTACGGA
TGGCATGACAGTAAGAGAATTATGCAGTGTGCCATAACCATGAGTGATAAAGTGGCGCAACTTACTTCTGACAACGA
TCGGAGGACCGAAGGAGCTAACCGCTTTTTCGACAAATGCGGGATCATGTAAGTGCCTTGATCGTTGGGAACCGGAG
CTGAATGAAGCCATACCAAACGAGCGGTGACACCAAGATGCTGTAGCAATGGCAACAACGTTGCGCAAACTATTAAAC
TGGCGAACTACTTACTCTAGCTTCCCGGCAACAATTAATAGACTGGATGGAGGCGGATAAAGTTGACAGGACCACTTCTGC
GCTCGGCCCTTCGGCTGGCTGGTTTATTGCTGATAAATCTGGAGCCGGTGAGCGTGGGTCTCGCGGTATCATTGACGCA
CTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAGTTATCTACACGACGGGAGTCAGGCAACTATGGATGAACGAAATAG
ACAGATCGCTGAGATAGGTGCCTCACTGATTAAGCATTGGTAAGTGTGACACCAAGTTTACTCATATATACTTTAGATTG
ATTTACCCCGGTTGATAATCAGAAAAGCCCCAAAAACAGGAAGATTGTATAAGCAAAATTTTAAATTGTAAACGTTAATA
TTTGTGTTAAATTCGCGTTAAATTTTGTAAATCAGCTCATTTTAAACCAATAGGCGGAAATCGGCAAAATCCCTTAT
AAATCAAAGAATAGCCCGAGATAGGGTTGAGTGTGTTCCAGTTTGAACAAGAGTCCACTATTAAAGAAGCTGGAGTCT
CAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCCAAATCAAGTTTTCGGGT
CGAGGTGCGCTAAAGCACTAAATCGGAACCCCTAAAGGGAGCCCCGATTAGAGCTTGACGGGAAAGCGAACGTTGGCGA
GAAAGGAAGGGAAGAAAGCGAAAGGAGCGGCGCTAGGGCGCTGGCAAGTGTAGCGGTACGCTGCGCGTAAACCACACA
CCCGCGCGCTTAATGCGCGCTACAGGGCGCGTAAAGGATCTAGGTGAAGATCCTTTTGATAATCTCATGACCAAAA
TCCTTAAAGTGAATTTTCGTTCCACTGAGCGTACAGCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTT
TCGCGCTAATCTGCTGCTTGCAACAAAAAACCCGCTACACAGCGGTGGTTGTTTGGCCGATCAAGAGCTACCAAC
TCTTTTTCCGAAGGTAAGTGGCTTACGACAGCGCGATACCAATACTGTTCTTCTAGTGTAGCCGTAGTTAGGCCACC
ACTTCAAGAACTCTGTAGCACCGCTACATACCTCGCTCTGCTAATCCTGTTACAGTGGCTGCTGCCAGTGGCGATAAG
TCGTGCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGTCCGGCTGAACGGGGGGTTCGTGCAC
ACAGCCAGCTTGGAGCGAACGACCTACACCGAAGTGAATACCTACAGCGTGAAGTATGAGAAAGCGCCACGCTTCCCG
AAGGGGAAGGCGGAGGATCCGTAAGCGGCGAGGTGCGAACAGGAGAGCGCACAGGAGGAGCTTCCAGGGGGAAC
GCCTGGTATCTTTATAGTCTGCTCGGGTTTCGCCACCTCTGACTTGAGCGTGGATTTTGTGATGCTCGTACAGGGGGCG
GAGCCTATGGAAGAACCGCAGCAACGCGCCTTTTACGGTTCTGCGCTTTTGTGCGCTTTTGTCTCATGTAATGTG
AGTTAGCTCACTATTAGGCACCCCAGGCTTTACACTTTATGCTTCCGGCTCGTATGTTGTGTGGAATTGTGAGCGGATA
ACAATTTACACAGGAAACAGCTATGACCATGATTACGCCAAGCTACGTAATACGACTCACTAGGCGGCGCGTTTAAAC
AATGTGCTCCTCTTTGGCTTGCTTCCGCGGCCAAGCCAGACAAGAACAGTTGACGTCAAGCTTCCCGGACGCGTGCT
AGCGCGCGCCGAATTCCTGAGGATTTCGAGGGCCCTCGAGGTCAATTCACCGGTAGGGGAGGCGCTTTCCCAAGG
CAGTCTGGAGCATGCGCTTAGCAGCCCCGCTGGCACTTGGCGCTACACAAGTGGCCTTGGCTCGCACACATTCCACA
TCCACCGGTAGCGCAACCGGCTCCGTTCTTGGTGGCCCTTCGCGCCACCTTCTACTCTCCCTAGTCAGGAAGTTC
CCCCCGCCCCGAGCTCGCGTGTGAGGACGTGACAAATGGAAGTAGACGCTCTCACTAGTCTCGTGCAGATGGACAG
CACCGCTGAGCAATGGAAGCGGTAGGCTTTGGGCGAGCGCCAAATAGCAGCTTTCCTCTTCTGGCTCAGAG
GGCTGGGAAGGGGTGGGTTCGGGGGCGGCTCAGGGGCGGCTCAGGGGCGGGGCGGGCGGCTTCCCGAGGCC
GGCATTCTGCGACGCTTCAAAGCGCAGCTCTGCGCGCTGTTCTCCTCTCTCATCTCCGGGCTTTCGACCTGCAGC
CAATATGGGATCGGCCATTGAACAAGATGGATTGACGCGAGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTGGCTATG
ACTGGGCAACAAGACAAATCGGCTGCTGTATGCGCGCGTTCGGCTGTGAGCGAGGGGCGCCCGTCTTTTTGTG
AAGACCGACCTGTCCGGTGCCTGAATGAATGACAGGACGAGCGCGGCTATCGTGGCTGGCCACGACGGGCGTTCC
TTGGCGAGCTGTGCTCGACGTTGTCACTGAAGCGGAAGGACTGGCTGCTATTGGGCGAAGTCCCGGGGAGGATCTCC
TGTCTCTCACTTGTCTCTGCGGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCT
ACCTGCCCCATTGACACCAAGCGAAACATCGCATCGAGCGAGCAGTACTCGGATGGAAGCCGGTCTTGTGCTATCAGGA
TGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCCGAATGTTCCGCGAGCTCAAGGCGCGCATGCCGACGGCGATG
ATCTCGTCTGACCATGGCGATGCTGCTTGGCGAATATCATGGTGGAAAATGGCCGCTTTTCTGGATTATCGACTGT
GGCCGGCTGGGTGTGGCGGACCGCTATCAGGACATAGGCTTGGCTACCCGCTGATTTGCTGAAGAGCTTGGCGGCGAATG
GGCTGACCGCTTCTCGTCTTACGTTATCGGCTTCCCGATTGCGAGCGCATCGCTTCTATCGCTTCTTGACGAGT
TCTTCTGAGGGGATCGATCCGCTCTGAAGTCTGCAGAAATGATGATCTATTAAACAATAAGATGTCCACTAAAATGG
AAGTTTTCTGTCTACTTTGTAAAGAGGTGAGAACAGAGTACCTACATTTGAATGGAAGGATTGGAGCTACGGGG
GTGGGGTGGGGTGGGATTAGATAAATGCTGCTTTACTGAAGGCTCTTACTATTGCTTTATGATAATGTTTCATAG
TTGGATATCAATAATTAACAAGCAAAACCAATTAAGGGCCAGCTCATTCCTCCACTCATGATCTATAGATCTATAGA
TCTCTCGTGGGATCATGTTTTTCTCTGATTCCCACTTTGTGGTTCTAAGTACTGTGGTTTCCAAATGTGTGAGTTTCA
TAGCCTGAAGAAGAGATCAGCAGCTCTGTTCCACATACACTTCACTCTAGTATTGTTTGGCAAGTTCTAATTCAT
CAGAAGCTGACTTAGATCTGGATCCGGCCAGTAGGCGCTCGACCTCGAGTGATCAGGTACCAAGGCTCTCGCTCTGTG
TCCGTTGAGCTCGACGACACAGGACACGCAAAATTAATTAAGGCGGGCCGTACCCTCTAGTCAAGGCTTAAGTGAGTGC
TATTACGGAAGTGGCGTCTGTTTTACAAGCTCGTGACTGGGGAACCCCTGGCGTTACCAACTTAATCGCTTGCAGACA
TCCCTCTTTCGCGAGCTGGCGTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCTGAATGGCG
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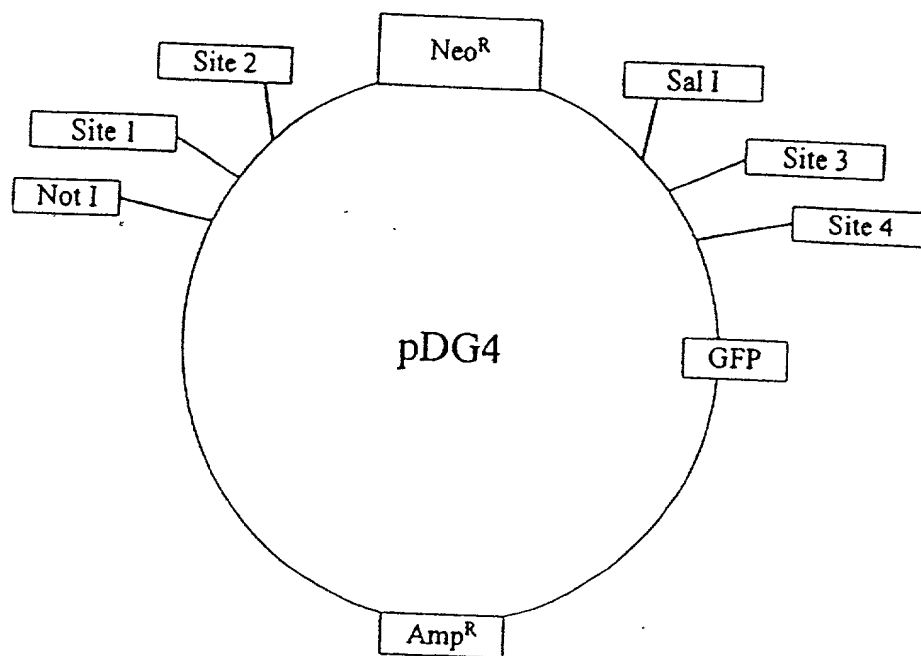


FIGURE 3A

FIGURE 3B

pDG4:

GTTTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATATGGAGTTCGCGTTACATAAATTACGGTAAATGG
 CCGCCTGGCTGACCGCCCAACGACCCCGCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAATAGGGA
 CTTTCCAATGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCACTTGGCAGTACATCAAGTGATCATATGCCAAGT
 ACGCCCCCTATTGACGTCAATGACGGAATATGGCCCGCTGGCATTAGCCCACTACATGACCTTATGGACTTTCCTAC
 TTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGTGATGCGGTTTTGGCAGTACATCAATGGGCGTGATAGC
 GGTTTGACTCACGGGGATTTCAAGTCTCCACCCATTGACGTCAATGGGAGTTTGTTTTGGCACCATAATCAACGGGAC
 TTTCCAAAATGTCGTAACTCCGCCCATTTGACGCAATGGGCGGTAGGCGTGTACGGTGGGAGTCTATATAAGCAG
 AGCTGGTTTAGTGAACCGTCAGATCCGCTAGCGCTACCGGTGCGCACCATTGGTGAGCAAGGGCGAGGAGCTGTTTACCGG
 GGTGGTGGCCATCCTGGTGGAGCTGGACGGGACGTAAACGGCCACAAGTTGAGCGTGTCCGGCGAGGGCGAGGGCGATG
 CCACCTACGGCAAGCTGACCTGAAGTTTCATCTGCACCAACGGCAAGCTGCCCGTGGCCCGCCCTCGTGACCACT
 CTGACCTACGGCGTGCACTGCTTCAAGCGCTACCCCGACCATGAAGCAGCAGCACTTCTTCAAGTCCGCCATGCCGA
 AGGCTAGTCCAGGAGCGCACCATCTTCTTCAAGGAGCAGCGCAACTACAAGACCCGCGCGAGGTGAAGTTCGAGGGCG
 ACACCTGGTGAACCGCATCGAGCTGAAGGGCATCGACTTCAAGGAGGACGGCAACATCCTGGGGCAACAGCTGGAGTAC
 AACTACAACAGCCACAACGTCTATATCATGGCCGACAGCAGAAGAACGGCATCAAGGTGAAGTCAAGATCCGCCACAA
 CATCGAGGACGGCAGCGTGCAGCTCGCCGACCACTACCGCAGAAACACCCCATCGGCGACGGCCCGTGTCTGCTGCCG
 ACAACCACTACCTGAGGACCCAGTCCGCCCTGAGCAAGACCCCAACGAGAAGCGCGATCAGATGGTCTGTGAGGTTT
 GTGACCGCCCGGGATCACTCTCGGCATGGACGAGCTGTACAAGTCCGGAATCAGATCCACCGGATCTAGATAACTGTAT
 CATAATCAGCCATACCACTTTGTAGAGGTTTACTTGTCTTAAAAAACCTCCACACCTCCCTGAACTGAAACATA
 AAATGAATGCAATTGTGTGTGTTAACTGTTTATTGAGCTTATAATGGTTACAAATAAAGCAATAGCATCAAAATTTT
 ACAAATAAAGCATTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAACTCATCAATGTATCTTAACGCAACTACGTCA
 GGTGGCACTTTTCGGGGAAATGTGGCGGAAACCCCTATTGTTTATTTTCTAAATACATTCAATATGTATCCGCTCAT
 GAGACAATAACCTGATAAATGCTTCAATAATTGAAAAAGGAAGAGTATGAGTATTCAACATTTCCGTGTGCGCCTTA
 TTCCCTTTTTTGGCGCATTTTTCCTTCTGTTTGTGCTCACCCAGAAACGCTGGTGAAAGTAAAGATCTGAAGATCAG
 TTGGGTGACAGGAGTGGTTTACATCGAACTGGATCTCAACAGCGGTAAGATCCTTGAGAGTTTTTCGCCCGAAGAACGTTT
 TCCAATGATGAGCACTTTTAAAGTTCTGCTATGTGGCGCGTATTATCCCGTGTGACGCGGGCAAGAGCAACTCGGTC
 GCCGCATACACTATTCTCAGAAATGACTTGGTTGAGTACTACCACTGACAGAAAGCATCTTACGGATGGCATGACAGTA
 AGAGAATTATGCACTGCTGCCATAACCATGAGTGATAACTGCGGCCAACTTACTTCTGACAACGATCGGAGGACCGAA
 GGAGCTAAACCGCTTTTTTGCACAACATGGGGATCATGTAATCGCTTGGTGGTGGGAGCTGAATGAAGCCA
 TACCAAAACGAGCGTGACACCAAGTGCCTGTAGCAATGGCAACAGTTGCGCAAACTATTAACTGGCGAACTACTT
 ACTCTAGCTTCCCGGCAACAATTAATAGACTGGATGGAGGGCGATAAAGTTGCGAGGACCACTTCTGCGCTCGGCCCTTCC
 GGCTGGCTGGTTATTGCTGATAAATCTGGAGCCGGTGAGCGTGGGTCTCGCGTATCATTGCGAGCTGGGGCCAGATG
 GTAAGCCCTCCCGTATCGTAGTTATCTACAGCAGCGGGAGTCAGGCAACTATGGATGAACGAAATAGACAGATCGCTGAG
 ATAGGTGCTCACTGATTAAGCATTTGTAAGTGTGACAGCAAGTTTACTCATATATACCTTAGATTGATTTACCCCGGTT
 GATAATCAGAAAAGCCCAAAACAGGAAGATTGTATAAGCAAAATTTTAAATGTAAGCGTTAATATTTGTTAAATTT
 CGCGTTAAATTTTGTAAATCAGCTCATTTTTTAACCAATAGGCGGAAATCGGCAAAATCCCTTATAAATCAAAAGAAT
 AGCCCGAGATAGGGTTGAGTGTGTTTCAGTTTGGAAACAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGG
 CGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCAAAATCAAGTTTTTGGGGTGGAGTGGCGTAA
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 TGTAACCGCCTACATACCTCGCTCTGCTAATCCTGTTACAGTGGCTGCTGCCAGTGGCGATAAGTGTCTTACCG
 GGTGGACTCAAGACGATAGTTACCGGATAAGCGCAGCGCTCGGCTGAAACGGGGGTTCTGTGCACACAGCCCAAGTTG
 GAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGC
 GGAAGGATATCCGGTAAGCGGCGGGTGGAAACAGGAGAGCGCAGAGGGAGCTTCCAGGGGAAACGCTGGTATCTTT
 ATAGTCTGTGCGGTTTTCGCCACCTCTGACTTGAGCGTCAATTTTTGTGATGCTCGTACGGGGGCGGAGCCTATGGAAA
 AACGCCAGCAACGCGGCTTTTTACGGTTCTGGCCTTTTGTGCTGCTTTTGTCTCATATGTAATGTAGTTAGCTCACTC
 ATTAGGCACCCAGGCTTTTACCTTTATGCTTCCGGCTCGTATGTTGTGTGGAATTTGTAGCGGATAACAATTTTCAACA
 GGAAACAGCTATGACCATGATTACGCCAAGTACGTAATACGACTCACTAGGCGGCGGTTTAAACAAATGTGCTCCTCT
 TTGGCTTGCTTCCGCGGGCCAAGCCAGACAAGAACAGTTGACGTCAAGCTTCCCGGACGCGTGTAGCGGCGCGCGA
 ATTCTGCAAGATTGAGGGCCCTGCAAGTCAATTTACCGGGTAGGGGAGGCGCTTTTCCCAAGGCAAGTCTGGAGCAT
 GCGCTTTAGCAGCCCCGCTGGCACTTGGCGCTACACAAGTGGCCTCTGGCTCGCACACATCCACATCCACCGGTAGCG
 CCAACCGGCTCCGTTCTTTGGTGGCCCCCTCGCGCCACCTTCTACTCTCCCTAGTCAGGAAGTCCCCCGGCCCGC
 AGCTCGCGTGTGACAGCGTGACAAATGGAAGTAGCACCTCTCACTAGTCTCGTGACAGTGGACAGCAGCGCTGAGCAA
 TGGAAAGCGGTAGGCTTTGGGGCAGCGGCCAATAGCAGCTTGTCTCTTCTGCTTCTGGGCTCAGAGGCTGGGAAGGGG
 TGGGTCCGGGGGCGGCTCAGGGGCGGCTCAGGGGCGGGGCGGCGGAAGGTCTCCCGAGGCGCGGATTCTCGCAC
 GCTTCAAAGCGCACGTCTGCGCGCTGTTCTCTCTCTCTCTCCGGGCTTTCGACCTGCAAGCAATATGGGATCG
 GCCATTGAACAAGATGGATTGCACGAGGTTCTCGGCGCTTGGGTGGAGAGGCTATTGGCTATGACTGGGCACAACA
 GACAATCGGCTGCTCTGATGCGCGGTTTCCGGCTGTGACGCGAGGGGCGCGGCTTCTTTTGTCAAGACCGACCTGT
 CCGGTGCCCTGAATGAAGTGCAGGACGAGGCGAGCGGCTATCGTGGTGGCCACGAGGGCGTCTTGTGCGCAGCTGTG
 CTCGACGTTGTCACTGAAGCGGGAAGGACTGGCTGCTATTGGGCGAAGTGGCGGGCAGGATCTCTGTCTCATCTCACCT

TGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCCATTGG
ACCACCAAGCGAAACATCGCATCGAGCGAGCACGTA CTGGATGGAAGCCGGTCTTGTCGATCAGGATGATCTGGACGAA
GAGCATCAGGGGCTCGCGCCAGCCGAAC TGTTCGCCAGGCTCAAGGCGCGCATGCCGACGGCGATGATCTCGTCGTGAC
CCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAATGGCCGCTTTTCTGGATT CATCGACTGTGGCCGGCTGGGTG
TGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGACCGCTTC
CTCGTGCTTTACGGTATCGCCGCTCCCGATTGCGCAGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGGGGA
TCGATCCGTCCTGTAAGTCTGCAGAAATTGATGATCTATTAAACAATAAAGATGTCCACTAAAATGGAAGTTTTTCCTGT
CATACTTTGTTAAGAAGGGTGAGAACAGAGTACCTACATTTGAATGGAAGGATTGGAGCTACGGGGGTGGGGGTGGGGT
GGGATTAGATAAATGCCTGCTCTTTACTGAAGGCTCTTTACTATTGCTTTATGATAATGTTTCATAGTTGGATATCATAA
TTTAAACAGCAAAACCAATTAAGGGCCAGCTCATTCTCCCACTCATGATCTATAGATCTATAGATCTCTCGTGGGAT
CATTGTTTTTCTCTTGATTCCCACTTTGTGGTTCTAAGTACTGTGGTTTCCAAATGTGTCAGTTTTCATAGCCTGAAGAAC
GAGATCAGCAGCCTCTGTTCCACATACACTTCATTCTCAGTATTGTTTTGCCAAGTTCTAATTCATCAGAAGCTGACTC
TAGATCTGGATCCGGCCAGCTAGGCCGTGACCTCGAGTGATCAGGTACCAAGGTCTCGCTCTGTGTCGGTTGAGCTCG
ACGACACAGGACACGCAAAATTAATTAAGGCCGGCCCGTACCCTCTAGTCAAGGCCTTAAGTGAGTCGTATTACGGACTGG
CCGTGTTTTTACAACGTCGTGACTGGGAAAACCTGGCGTTACCCAACCTTAATCGCCTTGCGACACATCCCCCTTTGCGC
AGCTGGCGTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGGCGCTTCGC
TTGGTAATAAAGCCCGCTTCGGCGGGCTTTTTTTT

FIGURE 3B (Continued)

Annealing site	Sequence	Sequence after digestion
1	5' tgtgctcctcttttggttggttccaa... 3' 3' acacgaggagaaaccgaacgaagggt... 5'	5' tgtgctcctcttttggttggttccaa... 3' 3' tt... 5'
2	5' ctgggttcttgtctggcttggcccaa... 3' 3' gaccaagaacagaccgaaccgggtt... 5'	5' ctgggttcttgtctggcttggcccaa... 3' 3' tt... 5'
3	5' ggtcctcgctctgtgtccggttgaa... 3' 3' ccaggagcgagacacaggaactt... 5'	5' ggtcctcgctctgtgtccggttgaa... 3' 3' tt... 5'
4	5' ttbgcgtgtcctgtgtcgtcgaa... 3' 3' aaacgcacaggacacagcaggtt... 5'	5' ttbgcgtgtcctgtgtcgtcgaa... 3' 3' tt... 5'

FIGURE 4

Annealing site	Sequence		Sequence after digestion	
1	5' AATgtgctcctctcttggcttgcttCCGC 3'	3' Ttacacgaggagaaaccgaacgaagg 5'	5' AA	3' Ttacacgaggagaaaccgaacgaagg 5'
2	5' AActggttcttctgtctggttgCCGC 3'	3' Ttgaccaagaacagaccgaaccggg 5'	5' AA	3' Ttgaccaagaacagaccgaaccggg 5'
3	5' AAggtcctcgctctgtgtccgttGAGCT 3'	3' Ttccaggagcgagacacaggcaac 5'	5' AA	3' Ttccaggagcgagacacaggcaac 5'
4	5' AAttgctgtctcctgtgtcgtcGAGCT 3'	3' Ttaaacgcacaggacacagcagc 5'	5' AA	3' Ttaaacgcacaggacacagcagc 5'

FIGURE 5

FIGURE 6

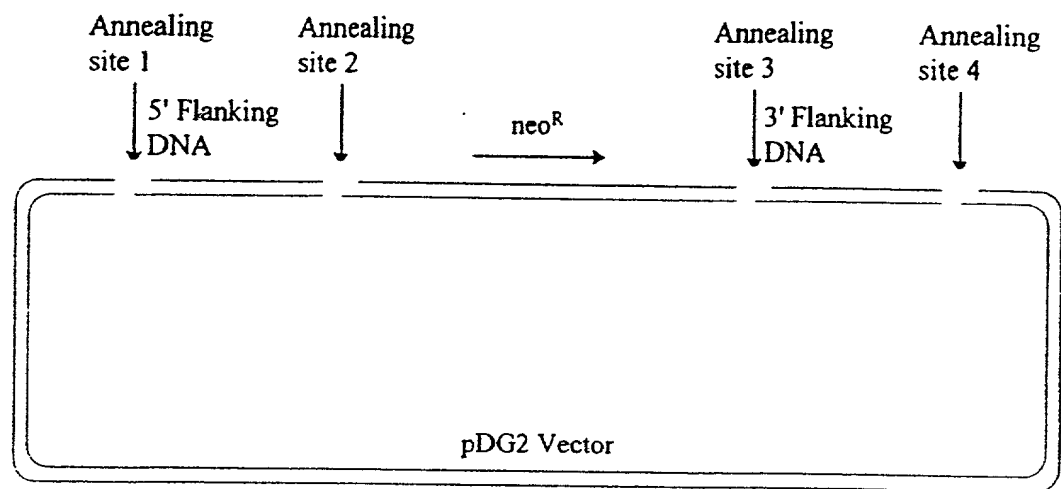
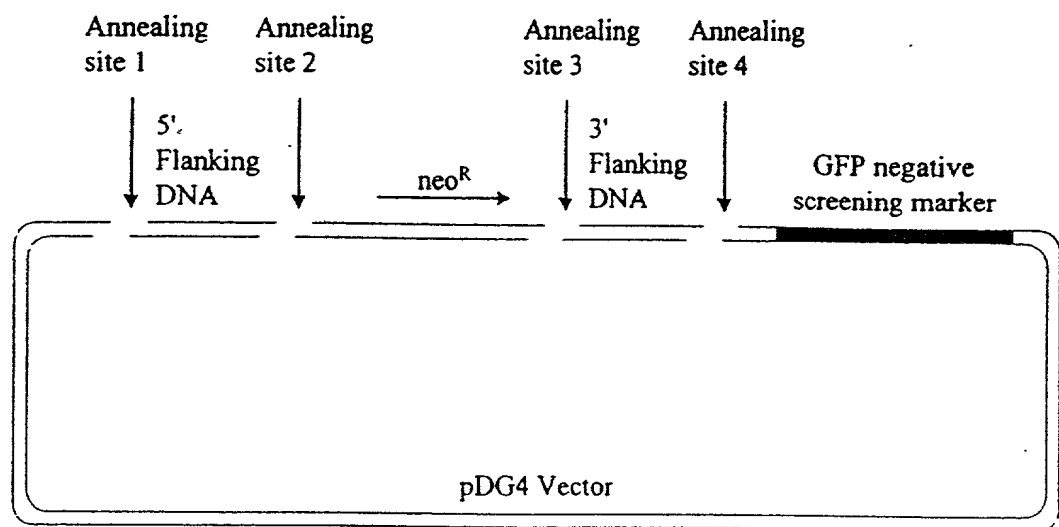


FIGURE 7



TCGGTTGGGCCCAGCAACTTCTAGCAAGCAGGCTACCCTTAGGACCATCCATATCCGATGAGCTCTACAG
TGGCTGCCTCCACTATGCCTGTGTCTGTGGCGGCCTCCAAGAAGGAGTCTCCAGGTAGATGGGGCCTTGG
AGAGGATCCAACAGGTGTGGGCCCCCTCGCTCCAGTGCCGAGTGTGTGGGGACAGCAGCAGTGGGAAACAT
TATGGCATCTATGCCTGCAATGGCTGCAGTGGCTTCTTCAAGAGGAGTGTGAGAAGGAGGCTCATCTACA
GGTGCCAAGTCGGGGCAGGGATGTGCCCAGTGGATAAGGCCCATCGCAATCAGTGCCAGGCCTGCCGGCT
GAAGAAGTGCTTACAAGCAGGCATGAACCAAGATGCTGTGCAGAATGAGCGCCAACCTCGGAGCATGGCT
CAGGTCCACCTGGATGCCATGGAAACAGGCAGTGACCCCGATCAGAACCAGTGGTAGCCTCTCCTGCTC
TGGCAGGGCCCAGTCCCCGGGGCCCCACGTCTGTGTCTGCAACCAGAGCCATGGGCCACCACTTTATGGC
CAGCCTTATCACCGCCGAAACTTGTGTCTAACTGGAGCCAGAGGACGCTGAAGAGAATATTGATGTCACC
AGCAATGACCCGAGTTCCCCGCATCCCCCTGCAGTCTGGATGGCATCCATGAGACATCTGCTCGCCTGC
TCTTCATGGCTGTCAAATGGGCCAAAAAATTGCCTGTGTTTTCCAACCTGCCTTTCCGGGACCAGGTGAT
CTTGCTGGAAGAGGCATGGAATGAGCTTTTCTTCTTGGAGCCATACAGTGGTCTCTGCCCTTGGACAGC
TGCCCACTGCTGGCACCACCTGAGGCGTCCGGCAGCTCTCAGGGCAGGCTGGCCTTGGCCAGTGCAGAGA
CGCGCTTCTTGCAGGAAACCATCTCCCGGTTCCGAGCTCTGGCAGTGGATCCCACAGAGTTTGCCTGCCT
GAAGGCCCTGGTCTCTTCAAACCTGAAACACGAGGCCTGAAGGATCCTGAGCACGTGGAGGCTTTGCAG
GACCAGTCCCAGGTGATGCTAAGCCAGCATAGCAAGGCTCACCACCCAGCCAGCCTGTGAGGTTTGGGA
AATTGCTCCTCCTGCTCCCATCTTTGAGGTTCTTACGGCTGAGCGCATTGAGCTTCTTCTTTCAGAAA
GACCATAGGGAACACTCCGATGGAGAAGCTCCTGTGTGACATGTTCAAAAACCTAGTTGGGAGTGCCAAGT
GTCCACAGGCACCCAGGGGGGCAGCACATCTTAGAAGCTAAATAGTTCCCTGCCTTTCTCAGCCAGTAAT
TCCACATTGAGGTATTCCTACCTAGCAGAAATTTCTCCCAAAATATATTATTGGCATATTCATTGCCATC
CTAATCTTAATACCCCTAACTCTGCTTGGGCAGTAGAATGCATGGATGCGTTGTTATATTCATAGGAGAA
ACAGCTTTGGCAA
(SEQ ID NO: 19)

Targeting Vector (5' arm; 200 bp flanking neo insert):

AGACTGAAAGACAGACAGACAGACAGAGGGTTAAAGATGGATGCATCGGTTGGGCCCAGCAACT
TCTAGCAAGCAGGCTACCCTTAGGACCATCCATATCCGATGAGCTCTACAGTGGCTGCCTCCACTATG
CCTGTGTCTGTGGCGGCCTCCAAGAAGGAGTCTCCAGGTAGATGGGGCCTTGGAGAGGATCCAAC
(SEQ ID NO: 20)

Targeting Vector (3' arm; 200 bp flanking neo insert):

CTCCAGTGCCGAGTGTTTGGGGACAGCAGCAGTGGGAAACATTATGGCATCTATGCCTGCAATGGCTG
CAGTGGCTTCTTCAAGAGGAGTGTGAGAAGGAGGCTCATCTACAGGTGCCACAGCTCTGCCGGCCTG
CCCCGGTGTGCCTAGCACGGGTGGAGGGCGTTCAGGGAAAGCGGAAGACGAGACCAGGGCAAACA
(SEQ ID NO: 21)

FIG. 8